Bruhat Bangalore Mahanagara Palike
Excecutive Engineer Yelahanka Division

ame of Work: Improvements to roads and drains 10th, 11th, 13th main roads at Judicial layout in ward No. 04

					Estimate Cost Rs.			100.00 Lakhs
Description of Items	**No**	**Length**	**Width**	**Depth**	**Quantity**	**Unit**	**Rate**	**Amount**
Removing & Refixing Stone Slabs of drains and Pointing in C.M(1:3). (Page No 25., I.No.5.33 of KPWD S.R 2016-17)								
Basic rate	76.00							
11% AD-HOC	8.36							
Sub Total-1	84.36							
6% AW	5.06							
Sub Total-2	89.42							
Top slab								
8th main	2	77.00	1.20		184.80			
10th main	2	102.00	1.20		244.80			
9th main	2	229.00	1.20		549.60			
7th cross	2	370.00	1.20		888.00			
1st main	2	35.00	1.20		84.00			
2nd main	2	207.00	1.20		496.80			
5th cross 13th main	2	55.00	1.20		132.00			
14th main	2	160.00	1.20		384.00			
27th cross	2	124.00	1.20		297.60			
Drain slab								
8th main	2	77.00	1.65		254.10			
10th main	2	102.00	1.65		336.60			
9th main	2	229.00	1.65		755.70			
7th cross	2	370.00	1.65		1221.00			
1st main	2	35.00	1.65		115.50			
2nd main	2	207.00	1.65		683.10			
5th cross 13th main	2	55.00	1.65		181.50			
14th main	2	160.00	1.65		528.00			
27th cross	2	124.00	1.65		409.20			
Total Qty					**7746.30**			
Consider 30% of total Qty					**2323.89**			
					2323.89	**Sqm**	**89.42**	**207805.96**
Providing precast slab of 100 mm thick including cost of all materials, labour, curing,transportation,loading ,unloading,etc.,complete as per the direction of engineer in charge-Data rate								
Basic rate	2100.00							
5% of Total qty of Item no -1 of precast slab					148.20			
					148.20	**Sqm**	**2100.00**	**311220.00**
Providing granite slabs of selected quality roughly dressed and fixed in cement mortar (1:6) including fixing curing etc., complete. 7.5cm thick (Page No 25., I.No.5.31.1 of KPWD S.R 2016-17).								
Basic rate	628.00							
11% AD-HOC	69.08							
Sub Total-1	697.08							
6% AW	41.82							

	Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	Sub Total-2	738.90							
	Consider 15% of Total qty of Item no -1					1161.95			
						1161.95	**Sqm**	**738.90**	**858566.74**
	KSRRB 300-1. Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 1.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 (Page No142., I.No.19.1 of KPWD S.R 2016-17).								
	Basic rate	82.00							
	11% AD-HOC	9.02							
	Sub Total-1	91.02							
	6% AW	5.46							
	Sub Total-2	96.48							
	10km ld & lt, transport	100.00							
	Sub Total-3	196.48							
	8th main	2	77.00	0.60	0.55	50.82			
	10th main	2	102.00	0.60	0.55	67.32			
	9th main	2	229.00	0.60	0.55	151.14			
	7th cross	2	370.00	0.60	0.55	244.20			
	1st main	2	35.00	0.60	0.55	23.10			
	2nd main	2	207.00	0.60	0.55	136.62			
	5th cross 13th main	2	55.00	0.60	0.55	36.30			
	14th main	2	160.00	0.60	0.55	105.60			
	27th cross	2	124.00	0.60	0.55	81.84			
	UGD Cut portion								
	8th main	1	77.00	1.00	0.40	30.80			
	10th main	1	102.00	1.00	0.40	40.80			
	9th main	1	229.00	1.00	0.40	91.60			
	7th cross	1	370.00	1.00	0.40	148.00			
	1st main	1	35.00	1.00	0.40	14.00			
	2nd main	1	207.00	1.00	0.40	82.80			
	5th cross 13th main	1	55.00	1.00	0.40	22.00			
	14th main	1	160.00	1.00	0.40	64.00			
	27th cross	1	124.00	1.00	0.40	49.60			
	Bad reaches	13	15.00	6.00	0.40	468.00			
	culvert	2	8.00	1.50	1.20	28.80			
						1937.34	**Cum**	**196.48**	**380650.89**
5	KSRB 4-1.2: Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.892cum and fine aggregates @ 0.465cum machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications.Specification No.KBS 4.1, 4.2 (P.12/I.4.2)/ PWD SR 2016-17								
	Basic rate	5046.00							
	11% AD-HOC	555.06							
	Sub Total-1	5601.06							
	6% AW	336.06							
	Sub Total-2	5937.12							
	culvert	2	8.00	1.50	0.15	3.60			

Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
KSRB 5.3-3 : Providing and constructing granite / trap / basalt size stone masonry in basement with cement mortar 1:6, edges of stones chistle dressed in courses not less than 15 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. KBS 5.1.13 (P.23/I.5.9)/ PWD SR 2016-17					3.60	Cum	5937.12	21,373.64
Basic rate	5005.00							
11% AD-HOC	550.55							
Sub Total-1	5555.55							
6% AW	333.33							
Sub Total-2	5888.88							
culvert	4	8.00	0.45	0.70	10.08			
					10.08	Cum	5888.88	59,359.94
KSRB - 4-1.6: Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates at 0.78cum and fine aggregates at 0.459 cum, machine mixed, concrete laid in layers not exceeding 15 cms.thick, well compacted, in foundation, plinth and cills including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1,4.2. (P.No.12, I.No.4.6 of PW, P&IWTD SR 2016-17)								
Basic rate	5441.00							
11% AD-HOC	598.51							
Sub Total-1	6039.51							
6% AW	362.37							
Sub Total-2	6401.88							
culvert	4	8.00	0.45	0.10	1.44			
					1.44	Cum	6401.88	9,218.71
Providing precast slab of 250 mm thick including cost of all materials, labour, curing,transportation,loading ,unloading,etc.,complete as per the direction of engineer in charge-(Data rate)								
Basic rate	5111.00							
	2	8.00	1.50		24.00			
					24.00	Sqm	5111.00	122664.00
KSRRB M400-6.1. Construction of granular sub-base by providing close graded material, crushed stone aggregates of granite/trap/basalt material, mixing in a mechaical mix plant at OMC, carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications. A. Plant Mix Method.Close graded granular sub-base material as per 400-1 For Grading- II Material (Page No 155., I.No.20.4.2 of KPWD S.R 2016-17).								
Basic rate	1571.00							
11% AD-HOC	172.81							
Sub Total-1	1743.81							
6% AW	104.63							
Sub Total-2	1848.44							
UGD Cut portion								
8th main	1	77.00	1.00	0.15	11.55			
10th main	1	102.00	1.00	0.15	15.30			
9th main	1	229.00	1.00	0.15	34.35			
7th cross	1	370.00	1.00	0.15	55.50			
1st main	1	35.00	1.00	0.15	5.25			

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Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
2nd main	1	207.00	1.00	0.15	31.05			
5th cross 13th main	1	55.00	1.00	0.15	8.25			
14th main	1	160.00	1.00	0.15	24.00			
27th cross	1	124.00	1.00	0.15	18.60			
Bad reaches	13	15.00	6.00	0.15	175.50			
					379.35	**Cum**	**1848.44**	**701205.18**
KSRRB M400- Wet Mix Macadam - KSRRB M400-17. Providing, laying, spreading and compacting graded stones aggregate to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406 (P.No.158 I.No.20.18)								
Basic rate	1668.00							
11% AD-HOC	183.48							
Sub Total-1	1851.48							
6% AW	111.09							
Sub Total-2	1962.57							
UGD Cut portion								
8th main	1	77.00	1.00	0.225	17.33			
10th main	1	102.00	1.00	0.225	22.95			
9th main	1	229.00	1.00	0.225	51.53			
7th cross	1	370.00	1.00	0.225	83.25			
1st main	1	35.00	1.00	0.225	7.88			
2nd main	1	207.00	1.00	0.225	46.58			
5th cross 13th main	1	55.00	1.00	0.225	12.38			
14th main	1	160.00	1.00	0.225	36.00			
27th cross	1	124.00	1.00	0.225	27.90			
Bad reaches	13	15.00	6.00	0.225	263.25			
					569.03	**Cum**	**1962.57**	**1116750.71**
1 Providing and applying primer coat with ss bitumen emulsion on prepared surface of granular base such as WMM including clearing of road surface and spraying primer at the rate of 0.60 kg/sqm using mechanical means complete as per specifications. MORTH Specification No.502 (P.No.160/It No.21.6)								
Basic rate	26.00							
11% AD-HOC	2.86							
Sub Total-1	28.86							
6% AW	1.73							
Sub Total-2	30.59							
UGD Cut portion								
8th main	1	77.00	1.00		77.00			
10th main	1	102.00	1.00		102.00			
9th main	1	229.00	1.00		229.00			
7th cross	1	370.00	1.00		370.00			
1st main	1	35.00	1.00		35.00			
2nd main	1	207.00	1.00		207.00			
5th cross 13th main	1	55.00	1.00		55.00			
14th main	1	160.00	1.00		160.00			
27th cross	1	124.00	1.00		124.00			
Bad reaches	13	15.00	6.00		1170.00			
Profile correction								

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Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
8th main	1	77.00	2.50		192.50			
10th main	1	102.00	2.25		229.50			
9th main	1	229.00	2.20		503.80			
7th cross	1	370.00	2.40		888.00			
1st main	1	35.00	2.50		87.50			
2nd main	1	207.00	2.10		434.70			
5th cross 13th main	1	55.00	2.60		143.00			
14th main	1	160.00	2.00		320.00			
27th cross	1	124.00	2.35		291.40			
					5619.40	**Sqm**	**30.59**	**171906.44**

KSRRB M500- 15. Providing, laying dense graded bituminous macadam using 40/60 TPH capacity H.M.P with Mechanical paver Gr-II (50mm to 75mm), crushed aggregates of specified grading premixed with 4.5% VG 30 grade bituminous binder and , transporting the hot mix to work site , laying to the required level and grade, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications MORTH Specification No.507 (P.No.162&163 It.No.21.17.6)

Basic rate	6717.00							
11% AD-HOC	738.87							
Sub Total-1	7455.87							
6% AW	447.35							
Sub Total-2	7903.22							
UGD Cut portion								
8th main	1	77.00	1.00	0.05	3.85			
10th main	1	102.00	1.00	0.05	5.10			
9th main	1	229.00	1.00	0.05	11.45			
7th cross	1	370.00	1.00	0.05	18.50			
1st main	1	35.00	1.00	0.05	1.75			
2nd main	1	207.00	1.00	0.05	10.35			
5th cross 13th main	1	55.00	1.00	0.05	2.75			
14th main	1	160.00	1.00	0.05	8.00			
27th cross	1	124.00	1.00	0.05	6.20			
Bad reaches	13	15.00	6.00	0.05	58.50			
Profile correction								
8th main	1	77.00	2.50	0.05	9.63			
10th main	1	102.00	2.25	0.05	11.48			
9th main	1	229.00	2.20	0.05	25.19			
7th cross	1	370.00	2.40	0.05	44.40			
1st main	1	35.00	2.50	0.05	4.38			
2nd main	1	207.00	2.10	0.05	21.74			
5th cross 13th main	1	55.00	2.60	0.05	7.15			
14th main	1	160.00	2.00	0.05	16.00			
27th cross	1	124.00	2.35	0.05	14.57			
					280.97	**Cum**	**7903.22**	**2220568.34**

L3 KSRRB 500-2. Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH specification clause 501. (P.No.161 & I.No.21.2)

Basic rate	3.00							
11% AD-HOC	0.33							

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Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
Sub Total-1	3.33							
6% AW	0.20							
Sub Total-2	3.53							
8th main	1	77.00	5.50		423.50			
10th main	1	102.00	6.80		693.60			
9th main	1	229.00	6.70		1534.30			
7th cross	1	370.00	6.60		2442.00			
1st main	1	35.00	4.80		168.00			
2nd main	1	207.00	5.60		1159.20			
5th cross 13th main	1	55.00	4.60		253.00			
14th main	1	160.00	6.00		960.00			
27th cross	1	124.00	6.30		781.20			
					8414.80	**Sqm**	**3.53**	**29,702.56**
KSRRB 500-7:Providing and applying tack coat with bitumen emulsion using 80/100 grade bitumen (VG20) on the prepared black toped suface at 2.5kg per 10 sqm, heating bitumen in boiler fitted with spray set (Excluding cleaning of road surface) including cost of all materials, labour, HOM of Machineries complete as per Specifications.(P.No.160 & I.No.21.7)								
Basic rate	11.00							
11% AD-HOC	1.21							
Sub Total-1	12.21							
6% AW	0.73							
Sub Total-2	12.94							
8th main	1	77.00	5.50		423.50			
10th main	1	102.00	6.80		693.60			
9th main	1	229.00	6.70		1534.30			
7th cross	1	370.00	6.60		2442.00			
1st main	1	35.00	4.80		168.00			
2nd main	1	207.00	5.60		1159.20			
5th cross 13th main	1	55.00	4.60		253.00			
14th main	1	160.00	6.00		960.00			
27th cross	1	124.00	6.30		781.20			
					8414.80	**Sqm**	**12.94**	**108909.39**
5 KSRRB M500- 15. Providing, laying bituminousConcrete using 40/60 THP capacity H.M.P with Mechanical paver Gr-II (30mm to 45mm), crushed aggregates of specified grading premixed with 5.4% VG 30 grade bituminous binder and , transporting the hot mix to work site , laying to the required level and grade,rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH Specification clause No.500.9 complete in all respects complete as per specifications MORTH Specification No.509 (P.No.164 Item No.21.22.6)								
Basic rate	7659.00							
11% AD-HOC	842.49							
Sub Total-1	8501.49							
6% AW	510.09							
Sub Total-2	9011.58							
8th main	1	77.00	5.50	0.04	16.94			
10th main	1	102.00	6.80	0.04	27.74			
9th main	1	229.00	6.70	0.04	61.37			
7th cross	1	370.00	6.60	0.04	97.68			
1st main	1	35.00	4.80	0.04	6.72			
2nd main	1	207.00	5.60	0.04	46.37			
5th cross 13th main	1	55.00	4.60	0.04	10.12			

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Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
14th main	1	160.00	6.00	0.04	38.40			
27th cross	1	124.00	6.30	0.04	31.25			
					336.59	**Cum**	**9011.58**	**3033225.53**
Providing and fixing pre cast solid **cement concrete kerb stones** made out of CC 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork, curing, including cost of materials, labour charges of machinery, loading and unloading, lead and lift, transportation ete.,complete (P.No-25, I No-5.30)								
Basic rate	313.00							
11% AD-HOC	34.43							
Sub Total-1	347.43							
6% AW	20.85							
Sub Total-2	368.28							
missing & damaged	2	60.00			120.00			
B = A/0.45				**A**	**120.00**			
				B	**267.00**	**Nos**	**368.28**	**98,329.64**
KSRRB 800-1. **Painting two coats** after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 (P.No-183, I No-24.1)								
Basic rate	60.00							
11% AD-HOC	6.60							
Sub Total-1	66.60							
6% AW	4.00							
Sub Total-2	70.60							
	2	300.00	0.35		210.00			
					210.00	**Sqm**	**70.60**	**14,825.16**
KSRRB M800-13: Road marking with hot applied thermoplastic compound with reflect rising glass beads on bituminous surface- providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface to level, uniform and free from streaks and holes complete as per specifications. MORTH specification No. 803, No. 1974 (P.No.185 & I.No.24.15)								
Basic rate	512.00							
11% AD-HOC	56.32							
Sub Total-1	568.32							
6% AW	34.10							
Sub Total-2	602.42							
8th main	2	77.00	0.10		15.40			
10th main	2	102.00	0.10		20.40			
9th main	2	229.00	0.10		45.80			
7th cross	2	370.00	0.10		74.00			
1st main	2	35.00	0.10		7.00			
2nd main	2	207.00	0.10		41.40			
5th cross 13th main	2	55.00	0.10		11.00			
14th main	2	160.00	0.10		32.00			
27th cross	2	124.00	0.10		24.80			
					271.80	**Sqm**	**602.42**	**163737.54**

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Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
KSRRB M800 Road markers / Road stud KSRRB M800-35. Providing and fixing of road stud 100x 100 mm, diecast in aluminium, resistant to corrosive effect of salt and grit, fitted with lense reflectors, installed in concrete or asphaltic surface by drilling hole 30 mm upto a depth of 60 mm and bedded in a suitable bituminous grout or epoxy mortar, all as per BS: 873 part 4:1973 complete as per specifications.(P.No-189,I No-24.41)								
Basic rate	339.00							
11% AD-HOC	37.29							
Sub Total-1	376.29							
6% AW	22.58							
Sub Total-2	398.87							
		1659.00			3318.00			
At 6.00m interval					553.00	Nos	398.87	220573.67
							Total Construction Cost	9850594.04
							DPR & PMC Charges	149400.00
							Sub Total	9999994.04
							Utility Shifting, Miscellaneous, Rounding off	5.96
							GRAND TOTAL	10000000.00

Certificate

1. The workspot was inspected and works is found to be necessary.
2. The area comes within the Bruhat Bangalore Mahanagara Palike limits.
3. The rates adopted based on the PWD SR,Bangalore circle for year 2016-2017, issue rates and Data Rates.

Assistant Engineer

Asst. Executive Engineer,

Executive Engineer,
Yelahanka Division,
BBMP Bangalore
7/2/18

Administrative Approval

Accorded For .....
Head of A/C.....
CER NO :..... Dt:..

E.E. (Project)

Technical Sanction

Accorded For 100.00 lakhs only
Head of A/C P-2415
CER NO :...644... Dt:08/02/18

[TA] [CE (YNK).